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EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/748,440

Applicant(s)

DAUM ET AL.

Examiner

George C. Neurauter, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Claims 1-5 and 7-32 are currently presented and have been examined.

***Response to Arguments***

Applicant's arguments filed 16 February 2006 have been fully considered but they are not persuasive.

The Applicant argues that the combine teachings of Koether and Andruzzi do not teach or suggest adjusting a characteristic of an appliance using the diagnostic interface via a power line carrier modem. The Examiner is not persuaded by these arguments. As shown previously, the combined teachings of Koether and Andruzzi teach that a diagnostic interface with a power line carrier modem would have been obvious to one of ordinary skill. The amended claims do not specifically specify what characteristic of the appliance is adjusted. However, Koether specifically discloses adjusting a characteristic of the appliance using the diagnostic interface within contemplated embodiments of Koether's invention (see column 5, line 60-column 6, line 9 as cited previously; see also column 2, lines 23-36, specifically lines 34-36). Therefore, the combined teachings of Koether and Andruzzi do disclose these limitations and the claims are not in condition of allowance.

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***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-5 and 7-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5 875 430 A to Koether in view of US Patent 4 580 276 to Andruzzi et al.

Regarding claim 1, Koether discloses a method of performing service diagnostics on appliances, the method comprising:

connecting a diagnostic interface within a building housing the appliance to a local area appliance network (referred to

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throughout the reference as "cell"), wherein the diagnostic interface includes a display; (column 5, lines 3-19; column 7, lines 45-62, specifically lines 59-62)

accessing an appliance in the local area appliance network and performing service diagnosis of the appliance through said diagnostic interface over the local area appliance network using service functions in the appliance; (column 5, line 60-column 6, line 9)

implementing the diagnostic interface within a single device including the display and a processing circuitry generating service commands to perform the service diagnosis; and adjusting, by the diagnostic interface, a characteristic of the appliance. (column 2, lines 23-36, specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62)

Koether does not expressly disclose wherein the diagnostic interface includes a power line carrier modem within the diagnostic interface, Koether does disclose a communication means within the diagnostic interface that may be used in a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19, specifically lines 5-8 and 11-13)

Andruzzi discloses a power line carrier modem configured to modulate data to communicate the data over an alternating

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current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Andruzzi discloses that a power line carrier system using modems enables bi-directional data to be communicated within a building via a power line carrier to various devices including appliances within a local area network (column 2, lines 50-64). In view of these specific advantages and that both references are directed to providing communication systems for appliances, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Regarding claim 2, Koether and Andruzzi disclose the method of claim 1.

Koether does not disclose wherein the local area appliance network comprises a power line carrier system, however, Koether does disclose that the local area appliance network may be

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implemented via a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19)

Andruzzi discloses wherein the local area appliance network comprises a power line carrier system. (column 2, line 44-64).

Claim 2 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 1.

Regarding claim 3, Koether and Andruzzi disclose the method of claim 1.

Koether wherein accessing further comprises accessing a dedicated appliance controller in an appliance. (Figure 1, element 140; column 4, line 23-column 5, line 2)

Regarding claim 4, Koether and Andruzzi disclose the method of claim 1.

Koether discloses wherein the service functions comprise safety functions, parameter functions, and appliance status functions. (column 9, lines 3-60, specifically "Type of malfunction")

Regarding claim 5, Koether and Andruzzi disclose the method of claim 1.

Koether discloses wherein the method is further comprising implementing said diagnostic interface in a computer. (Figure 2, element 155; column 5, line 60-column 6, line 9; column 7, lines

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54-62) (see also Figure 8, element 810; column 10, line 1, column 11, line 29)

Regarding claim 7, and Andruzzi disclose the method of claim 1.

Koether discloses wherein the method is further comprising connecting to a remote system to retrieve service diagnostic information. (column 5, line 60-column 6, line 9, specifically column 5, line 67-column 6, line 5)

Regarding claim 8, and Andruzzi disclose the method of claim 1.

Koether discloses wherein performing service diagnosis includes diagnosing and servicing the appliance based on the appliance diagnosis. (Figure 7, element 735; column 9, lines 44-60)

Regarding claim 9, Koether and Andruzzi disclose the method of claim 8.

Koether discloses wherein servicing the appliance comprises patching appliance firmware. (column 5, line 60-column 6, line 9, specifically column 6, line 2)

Regarding claim 10, Koether and Andruzzi disclose the method of claim 8.



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Koether discloses wherein servicing the appliance comprises adjusting appliance parameters. (column 9, lines 44-60, specifically "modify the cooking profiles")

Regarding claim 11, Koether and Andruzzi disclose the method of claim 1.

Koether discloses the method is further comprising maintaining an external database (Figure 1, element 190) of appliance information based on diagnosis of the appliance. (column 5, lines 50-59; column 9, lines 3-60)

Regarding claim 12, Koether discloses a diagnostic interface ("base station"; Figure 1, element 150) for performing service diagnostics on appliances (column 5, line 60-column 6, line 9), the diagnostic interface comprising:

a display for viewing diagnostic and service information; (column 7, lines 45-62, specifically lines 59-62)

processing circuitry for generating service commands for an appliance; (column 7, lines 45-62, specifically lines 54-57)

said diagnostic interface implemented within a single device including said display and said processing circuitry generating the service commands to service the appliance, wherein said diagnostic interface configured to adjust a characteristic of the appliance. (column 2, lines 23-36,

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specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62)

Koether does not expressly disclose a power line carrier communication interface configured to be connected to a local area appliance network within a building housing the appliance, wherein said power line carrier communication interface facilitates transmitting the service commands to the appliance and receiving appliance diagnostic results on a power line carrier communication system, and said diagnostic interface implemented within a single device including a power line communication interface, however, Koether does disclose a wired communication interface within the diagnostic interface to accomplish these limitations (column 5, lines 3-19, specifically lines 5-8 and 11-13). Koether also discloses that RF, microwave, satellite, or infrared communication interfaces may also be used. (column 5, lines 13-19)

Andruzzi discloses a power line carrier interface configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6,

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line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59).

Claim 12 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 12.

Regarding claim 13, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the diagnostic interface is further comprising an appliance bus interface ("wireless means") for communicating with the appliance. (column 5, lines 3-19)

Regarding claim 14, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the diagnostic interface is further comprising a remote service center interface. (Figure 1, element 175; column 5, lines 37-49)

Regarding claim 15, Koether and Andruzzi disclose the diagnostic interface of claim 14.

Koether discloses wherein the diagnostic interface gathers appliance statistics to send to a remote service center over the remote service center interface. (column 5, line 60-column 6, line 9)

Regarding claim 16, Koether and Andruzzi disclose the diagnostic interface of claim 12.

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Koether discloses wherein the diagnostic interface is further comprising a user interface to facilitate service diagnostics. (column 7, lines 45-62, specifically lines 59-62)

Regarding claim 17, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a refrigerator. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 18, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises an oven. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 19, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a heating system. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 20, Koether and Andruzzi disclose the diagnostic interface of claim 12.

Koether discloses wherein the appliance comprises a cooling system. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 21, Koether and Andruzzi disclose the diagnostic interface of claim 12.

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Koether discloses wherein the appliance comprises a lighting system. (column 4, lines 23-36, specifically lines 32-36)

Regarding claim 22, Koether discloses a diagnostic system for provide access to service diagnostics on an appliance, the system comprising:

a local area appliance network ("cell") coupled to the appliance; (column 5, lines 3-36)

a diagnostic interface configured to be connected to said local area appliance network within a building housing the appliance, said diagnostic interface comprising a display, wherein said diagnostic interface facilitates accepting service destined for the appliance, the diagnostics interface implemented within a single device including a display device and a microprocessor configured to generate the diagnostics commands; ("base station"; Figure 1, element 150; column 5, lines 3-19; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62; column 7, lines 45-62, specifically lines 59-62) and a dedicated appliance controller for receiving and executing the diagnostics commands (Figure 1, element 140; column 4, line 23-column 5, line 2), wherein said diagnostic interface configured to adjust a characteristic of the appliance (column 2, lines 23-36, specifically lines 34-36;

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column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62).

Koether does not disclose wherein the diagnostics interface includes a power line carrier modem within the diagnostic interface, Koether does disclose a communication means within the diagnostic interface that may be used in a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19, specifically lines 5-8 and 11-13)

Andruzzi discloses a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59).

Claim 22 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 22.

Claim 23 is rejected since claim 23 recites a system that contains substantially the same limitations as claim 2.

Regarding claim 24, Koether and Andruzzi disclose the system of claim 22.

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Koether discloses wherein the diagnostics interface comprises a computer. (Figure 2, element 155; column 7, lines 45-62, specifically lines 59-62)

Regarding claim 25, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the diagnostics interface comprises a PC card interface and an appliance bus interface. (column 10, lines 1-22)

Regarding claim 26, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the system is further comprising a communications interface between the local area appliance network and the dedicated appliance controller. (column 5, lines 3-36)

Regarding claim 27, Koether and Andruzzi disclose the system of claim 22.

Koether discloses wherein the system is further comprising a remote system, the remote system connectable to the diagnostic interface via an Internet connection. (column 5, lines 37-49)

Regarding claim 28, Koether and Andruzzi disclose the system of claim 22.

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Koether discloses wherein the dedicated appliance controller is contained within the appliance. (Figure 1, element 140; column 4, line 23-column 5, line 2)

Regarding claim 29, Koether discloses the system of claim 22.

Koether does not expressly disclose wherein the diagnostic interface comprises a power line carrier modem which allows the diagnostic interface to communicate with an appliance via a power line carrier system, however, Koether does disclose that the local area appliance network may be implemented via a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19)

Andruzzi discloses wherein the local area appliance network comprises a power line carrier system configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59).

Claim 29 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 29.



Regarding claim 30, Koether and Andruzzi disclose the method of claim 1.

Koether discloses wherein adjusting the characteristic comprises changing, by the diagnostic interface, the characteristic of a home appliance. (column 2, lines 23-36, specifically lines 34-36; column 5, line 60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62)

Koether does not expressly disclose wherein the diagnostic interface includes a power line carrier modem within the diagnostic interface, Koether does disclose a communication means within the diagnostic interface that may be used in a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19, specifically lines 5-8 and 11-13)

Andruzzi discloses a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59).

Claim 30 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 30.

Regarding claim 31, Koether and Andruzzi disclose the method of claim 1.

Koether does not expressly disclose translating, by the power line carrier modem, between an appliance protocol of the appliance and a power line carrier protocol, however, Koether does disclose wherein the diagnostic interface communicates with appliances bidirectionally through the use of transceiver modem means and that the diagnostic interface is able to interpret data sent from the appliance (column 5, lines 3-35 and 60-65).

Andruzzi discloses the power line carrier modem as shown above regarding claim 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to translate, by the power line carrier modem, between an appliance protocol of the appliance and a power line carrier protocol since Koether expressly discloses that the transceiver modem is able to receive data sent from an appliance and interpret this data on the diagnostic interface. Therefore, one of ordinary skill in the art would recognize that translation of protocols between the data that is sent from the appliance to the diagnostic interface and the transceiver modem means would occur if the diagnostic interface can read data from the transceiver modem and therefore would have found it obvious that translation

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between protocols occurs in view of the disclosures of Koether. It further would have been obvious to use a power line carrier modem in place of the transceiver modem means disclosed in Koether since, as shown above regarding claim 1, Koether suggests that means within the diagnostic interface that may be used in a RF, wired, microwave, satellite, or infrared network and Andruzzi discloses that a power line carrier system using modems enables bi-directional data to be communicated within a building via a power line carrier to various devices including appliances within a local area network. In view these disclosures within Koether and Andruzzi and that both references are directed to providing communication systems for appliances, one of ordinary skill would have been motivated to combine these references in order to achieve the claimed invention and would have considered them to be analogous to one another based on their related fields of endeavor.

Regarding claim 32, Koether and Andruzzi disclose the method of claim 1.

Koether further discloses correcting problems found during the performance of service diagnostics by said adjusting, by the diagnostic interface, the characteristic of the appliance.

(column 2, lines 23-36, specifically lines 34-36; column 5, line

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60-column 6, line 9; column 7, lines 45-62, specifically lines 54-62; column 8, line 57-column 9, line 2)

Koether does not expressly disclose wherein the diagnostic interface includes a power line carrier modem within the diagnostic interface, Koether does disclose a communication means within the diagnostic interface that may be used in a RF, wired, microwave, satellite, or infrared network (column 5, lines 3-19, specifically lines 5-8 and 11-13)

Andruzzi discloses a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line. (column 2, line 44-column 3, line 17, specifically column 2, lines 54-60 and column 2, line 65-column 3, line 17; column 4, line 59-column 5, line 19, specifically column 5, lines 2-12; column 5, line 55-column 6, line 17, specifically column 5, lines 55-67; column 9, line 33-59, specifically column 9, lines 56-59).

Claim 32 is rejected since the motivations regarding the obviousness of claim 1 also apply to claim 32.

#### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/gcn/



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